Response to Arguments

1.   Applicant's arguments with respect to claims 1, 2, 4-6, 8, 20-22, 24-26,

28, 30, 31, and 33 have been considered but are moot in view of the new

ground(s) of rejection.

Claim Rejections - 35 USC § 102

2.   The following is a quotation of the appropriate paragraphs of 35

U.S.C. 102 that form the basis for the rejections under this section made in

this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign
> country or in public use or on sale in this country, more than one year prior to the date of
> application for patent in the United States.

3.   Claims 1, 2, 4-6, 8, 20-22, 24-26, 28, 30, 31, and 33 are rejected under

35 U.S.C. 102(b) as being anticipated by Toshiaki (US Patent No. 6,338,538).

Claim 1 (Currently Amended): An image output control system comprising an

image processing device that makes image data subjected to a preset series of

image processing and an image output device that creates dots according to a

result of the preset series of image processing to output an image, said image

processing device (driver 96 Fig. 8) comprising: **a pixel group generation**

module (rasterizer 97/color correction module 98 Fig. 8) that sequentially

extracts, from the image, a plurality of pixel groups, (converting the image

information processed by application program to dot-based color information

and color correction of converted image information according to the

characteristics of an image output apparatus, 13:55-65 the BRI of pixel groups

is the group of cyan pixels, magenta pixels, yellow pixels, and black pixels

which constitute a color-corrected tone data DS) each of the pixel groups

comprising a predetermined number of pixels selected from among pixels

constituting the image (shown by the Fig. 13 pixels with values of 63-255 are

the selected); **a dot number specification module (halftone module 99)** that

specifies a number of dots to be created (shown in Fig. 16 by on/off state of

deep dots) in each of the pixel groups (halftone processing performed for all of

CMYK 15:5-15), said number of dots being specified based on a result of

comparison between a tone value of each of the pixels constituting each of the

pixel groups and a corresponding threshold value mapped in each of dither

matrices, which is provided to each of the pixel groups, wherein each of the

dither matrices comprises a plurality of threshold values selected from among

various types of threshold values mapped in a two- dimensional array (as

shown in Fig. 16 and described in the systematic dither method using a

threshold matrix 16:18-46), wherein the number of the selected threshold

values is equal to the number of pixels included in each of the pixel groups

(notice the number of threshold values in threshold matrix corresponds to the

number of pixels in the deep level data Fig. 16 deep level data as described in

16:3-18 and Fig. 13) and the number of types of the threshold values (each of

the threshold values 0 to 255 16:34 is considered the BRI for number of types

of the threshold values) mapped in the two-dimensional array is greater than the number of the pixels included in each of the pixel groups (threshold values range from 0-255 16:34 and selected number of pixels range from 63-255 shown by Fig. 13) and

a number data supply module (driver 90 interface to printer 20 Fig. 8) that supplies dot number data representing the number of dots specified with regard to each pixel group to said image output device (computer 90 sending signals to printer 20 13:50), said **image output device** comprising: **a number data receiving module** (connector 56 Fig. 2) that receives the dot number data with regard to each pixel group (printer 20 receive signals from computer 90 13:50); **a priority order selection module** that selects a priority order of pixels for dot formation in each pixel group (order of application of the pixel groups CMYK shown in Fig. 4 by first pair, second pair, third pair 13:24-37); **a pixel position determination module** that determines position of each dot-on pixel included in each pixel group, based on the received dot number data and the selected priority order (carriage 30 controls the discharge of ink and production of dot patterns); and **a dot formation module** (print head 28 mounted on carriage 30 12:35-40) that actually creates a dot at the determined position of each dot-on pixel (ink particles sprayed from ends of nozzles onto a sheet of paper 13:15-30).

Claim 2 and 6 (Original): An image output control system in accordance with

claim 1, wherein said priority order selection module selects one priority order

for each pixel group, among multiple priority orders prepared in advance (Fig.

4).

Claim 3 (Canceled).

Claim 4, 21, and 25 (Previously Presented): An image output control system in

accordance with claim 1, wherein said priority order selection module divides

the dither matrix referred to for the dot number specification into multiple

groups (notice the binary coding for each of the groups Fig. 22 is based on the

order described in Fig. 4) corresponding to multiple pixel groups, specifies a

priority order of pixels in each pixel group based on a result of comparison

between the image data of respective pixels included in the pixel group and

corresponding threshold values (Fig. 22), and stores the specified priority

orders of the multiple pixel groups as the multiple priority orders, said priority

order selection module selecting one priority order corresponding to a position

of each pixel group in the image, among the multiple priority orders based on

the dither matrix (Fig. 22).

Regarding claim 8 number data receiving module receives the dot number data

in each pixel group of plural pixels that are adjacent to one another and have a

preset positional relation (Fig. 16).

Conclusion

4.   The prior art made of record and not relied upon is considered pertinent

to applicant's disclosure. Kakutani (US Publication No. 2005/0219563).

5.   Applicant's amendment necessitated the new ground(s) of rejection

presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**.

See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as

set forth in 37 CFR 1.136(a).

        A shortened statutory period for reply to this final action is set to expire

THREE MONTHS from the mailing date of this action. In the event a first reply

is filed within TWO MONTHS of the mailing date of this final action and the

advisory action is not mailed until after the end of the THREE-MONTH

shortened statutory period, then the shortened statutory period will expire on

the date the advisory action is mailed, and any extension fee pursuant to 37

CFR 1.136(a) will be calculated from the mailing date of the advisory action. In

no event, however, will the statutory period for reply expire later than SIX

MONTHS from the date of this final action.

        Any inquiry concerning this communication or earlier communications

from the examiner should be directed to LAWRENCE WILLS whose telephone

number is (571)270-3145. The examiner can normally be reached on Monday-Friday 9:30 AM - 6:00 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, King Poon can be reached on 571-272-7440. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/KING POON/
Supervisory Patent Examiner, Art Unit 2625

LEW
July 2, 2011